Patricia Seybold Group

Strategic Technologies, Best Practices, Business Solutions

InfoMation's Echo™

Turning Personalization Technology into Corporate Knowledge Management

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May 1997

Prepared for InfoMation Publishing Corporation

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The Problem: Managing Information

The Information Crisis

We are inundated with information. Each of us daily has to deal with increasing amounts of e-mail, voice mail, reports, updates, and news of all kinds (newspapers, radio, television, Internet). In addition, we are expected (and some of us even want) to keep up with the discussions in our groupware databases, Internet mailing lists and news groups, and everything that is new on the World Wide Web. And most of us also have jobs to do.

Although information overload is not a new phenomenon (I've been writing about it for nearly a decade), it has never before reached the level that each of us faces today. This level is leading to a crisis for both individuals and the organizations they work for. Those of us who have studied people's reactions to information overload have almost universally found that the reaction is not to become more discriminating in our information choices but to *turn them off entirely*. We are faced with the paradox that the glut of information may lead to too little information actually being absorbed and used. This can certainly affect the effectiveness of individuals, but, more critically, it can undermine an organization's ability to access and process information and gain competitive advantage through the management of corporate knowledge.

Addressing Personal Needs

The problems of information overload have not gone unnoticed. There is a raft of approaches and products (might we say an overload?) designed to address the issue. These approaches range from powerful search engines to e-mail filters to personal agents to profiled news feeds to personalized newspapers.

Much of the current focus is on the new category of information "push" products, which alleviate the need for the user to go to a source (i.e., a Web site) and retrieve information. Instead, information that meets users' profiles is automatically delivered to their desktops—in their mailboxes, as screen-savers or "ticker tapes," or popping up on their computer screens as they are working.

These approaches—we put them in the category of personalization technologies—can be very useful for individuals trying to manage their own information environment.

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They have, however, several significant limitations today. These limitations include:

- **Difficulty of Creating Profiles.** Most users have problems creating profiles for either searching or filtering that return the desired results. All too frequently, the user receives too much information to be useful and, less frequently, does not receive enough. Proper profiling can require training, the assistance of a professional researcher, a lot of trial and error, or all of the above, and users are often frustrated with the whole process.

- **Multiple Personalizations.** This is not the "Sybil" effect. Rather, it is the problem that arises when users need information from multiple sources, some of which require different personalization vehicles. Currently, each vehicle, and sometimes each source, requires a separate profile to be filled out, even if the desired information is the same. And imagine the user faced with her e-mail beeping, her screen-saver flashing, the ticker tape running, and notices popping up. She may even be happy when the operating system message appears saying, "The network is down."

- **Benefits Only to the Individual.** All of the personalization technologies are designed to help individuals manage information. They do not enable that information to be shared, nor do they even enable the profiles that resulted in a specific set of information to be readily used by others. Even more significant, they do not address organizations' information management requirements.

Organizational Information Management Needs

Let's be clear that one of an organization's information management requirements is for the users to be able to easily access appropriate information, and personalization technologies can certainly play an important role. But the task does not end here. For those charged with managing a company's information and knowledge assets, the issue goes past how to deal with an individual's information overload to how to meet the organization's strategic information goals.

The implementation of these goals goes beyond simply enabling the delivery and receipt (and perhaps filtering) of information. For many companies, the goals include:

- Keeping employees up to date on internal corporate information

- Assuring that specific internal and external business-critical information reaches the proper people

- Maximizing the use of the corporate investment in licenses and subscriptions to external information sources

- Facilitating the sharing of information

- Turning corporate knowledge into a competitive advantage

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InfoMation's Echo: An Organizational Solution

We are just beginning to see products being developed that help address organizational management of internal and external information. One of these, Echo, has caught our attention because of its specific goal of enabling corporate knowledge management. Though still in beta testing, Echo has the potential of transforming many corporate information management strategies.

InfoMation's Echo Spans the Gaps

InfoMation Publishing

InfoMation Publishing (www.infomation.com), a subsidiary of CMG Information Services, Inc., begins with the trademarked philosophy: *You are what you read.*™ InfoMation's goal is to provide products that enable the best use of information by individuals, organizations, and public Web sites.

Its core technology is an advanced information management and delivery system that creates continuously updated personalized Web pages that integrate a variety of information sources.

Three Value Propositions

InfoMation is leveraging this technology in three areas:

- **Personalization.** A version of Echo is available for ISPs and information providers to allow users to create personal newsletters that integrate information from a selection of publicly available and subscription-based sources. This version is designed as a value-added service for popular sites such as GeoCities (www.geocities.com).

- **Dynamic Publishing**. A version of Echo is available for companies to integrate into their Web sites to provide visitors with up-to-date, focused information from the Web site and other sources. This version is designed to build returning traffic and customer loyalty.

- **Corporate Information Management.** The major thrust for Echo is as a system to enable organizations to manage and facilitate the use of their internal and external information resources.

Although all three of these initiatives may have significant impact, it is the third that is most exciting to those of us who focus on corporate knowledge management.

InfoMation's Echo Product

Echo Personal Information Center

Echo uses the metaphor of an online personal information center to deliver customized news and information to the user. (See Illustration 1.) The personal information center is actually a personalized Web page that can be accessed through industry-standard browsers including Netscape Navigator and Microsoft Internet Explorer. Unlike many other personalization products, Echo does not require the user to download software add-ons that require additional memory or other system resources.

Echo Personal Information Center

Netscape - [InfoMation Echo]
File Edit View Go Bookmarks Options Directory Window Help
InfoMation
Echo
Insurance Agent's P
Friday, May 2, 1997
Southworth Insuran
From the Chairman
Management News
Corporate Activities
Term Life Dept.
From the Manager
In the news...
Securities Info
Continuing Educatio
Mass. Insurance Ne
In the news...
Office of Consumer
General Information
Regulations & Orgar
Policy Watch
Campaign Watch
AALU
ASCLU
In the news...
U.S. jobless rate falls to 4.9 percent in April
(Combines takes, adds analysis) By Peter Szekely WASHINGTON (Reuter) - The unemployment rate fell to 4.9 percent last month -- its lowest rate in more than 23 years -- from 5.2 percent in March, even though the economy created jobs at only a modest pace, the government said Friday.
Running for Office: March 1997 LAN Cover Story
Cover Story: March 1997 Life Association News Running for Office By George A. Norris, LAN Associate Editor Pursuing Association Leadership and How To Get Pushed Ahead Thirtyoneyearold Brian E. Lampton, LUTCF, who represents Nationwide Insurance in Beavercreek, Ohio, is having another very busy day.
Life Association News Tip of the Week
Who Will? We Will! by John P. Causey, CLU, LUTCF New York Life Greensboro, N.C. Ask your prospect to write on the back of a business card the name of a person who would give them a check each month equal to what they need to keep them financially secure.
A.M. Best to Expand Coverage of Alternative-risk Entities
A.M. Best to Expand Coverage of Alternative-risk Entities The alternative, or nontraditional, risk industry--which historically has provided innovative insurance coverage and capacity to the Fortune 1,000--has broadened its appeal in recent years and begun to make inroads into the middle market of commercial insureds, particularly in the lucrative specialty segments.
Received at 9:15am EDT on Friday

Illustration 1. An Echo user can see the latest news as well as other areas of interest.

The personal information center is designed to display information from a variety of sources, including news wires, the Web, e-mail, USENET news groups, relational databases, and groupware products. The information to be displayed can be selected by the user or via organizational templates.

Echo Server

The Echo Server is made up of three sets of components that provide the following:

- Active filtering
- Storage and retrieval
- Access and presentation

ACTIVE FILTERING. The heart of Echo is a system of software agents and filters that continually monitor the information sources and update each user's information center. The information is thus always current—an extremely important feature in today's world of nonstop information.

STORAGE AND RETRIEVAL. The second component is the Echo Catalog, which contains a rich set of predefined queries. These can be added to and customized at the corporate, departmental, or individual level, including adding appropriate access and license control. User profiles, templates, and access control information are stored in a separate database. Access control is definable by individuals, groups, and roles. It

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includes access to information and to the ability to modify and share user templates.

ACCESS AND PRESENTATION. The third piece of Echo provides users with access to the documents. This component can be accessed by the user as a Web page (the Echo personal information center), or it can be delivered to the user via e-mail or a variety of push technologies.

FLEXIBLE ARCHITECTURE. These components sit between the data sources and the users who need to see them. (See Illustration 2.)

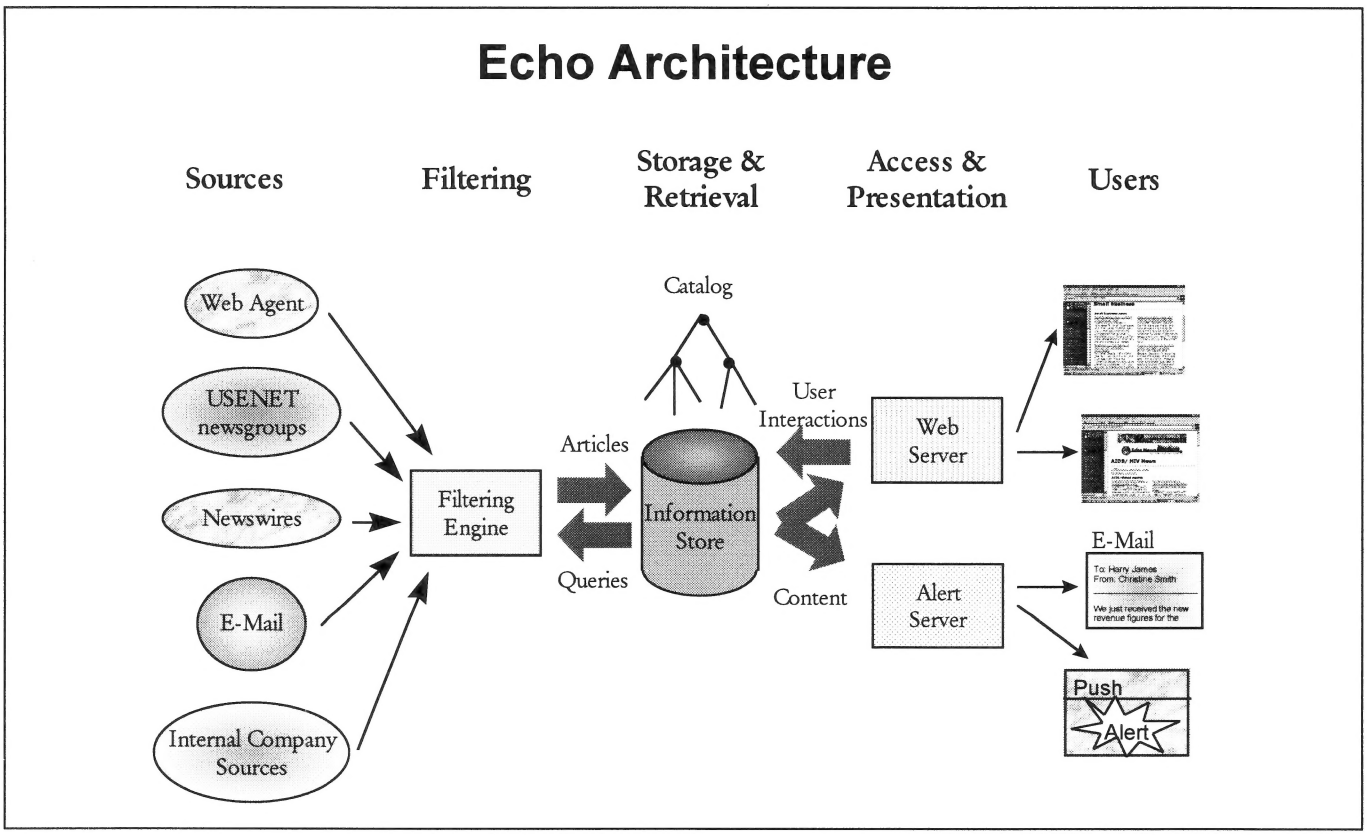

Illustration 2. The Echo architecture enables the active processing of multiple sources of information and provides personalized delivery to individuals.

This architecture is designed for maximum extensibility and flexibility. It is open to be easily extended on both ends—sources and delivery mechanisms. And the presentation engine can be customized to enable the personal information center to reflect a corporation's look and feel.

In addition, the system can be distributed across multiple machines for scalability and redundancy or for optimizing performance in a geographically distributed enterprise.

InfoMation's Echo Addresses Organization Needs

More Than Personalization

At first glance, this looks like a powerful personalization system, which it certainly is. But Echo addresses the organizational management issues, most notably in two ways that we believe constitute a unique approach to these issues.

First, it enables companies to manage external resources—both public and private (i.e., licensed or subscription-based). Management can control who can get to which resources and monitor who is using them. This provides a better understanding of information consumption and enables justification of subscriptions, internal billing, or possible re-negotiation of expensive information purchases.

Second, management can determine what users see by creating role-based profiles and making sure that pertinent internal information is automatically delivered to the user's information center, as shown in the Message from the Manager in Illustration 3.

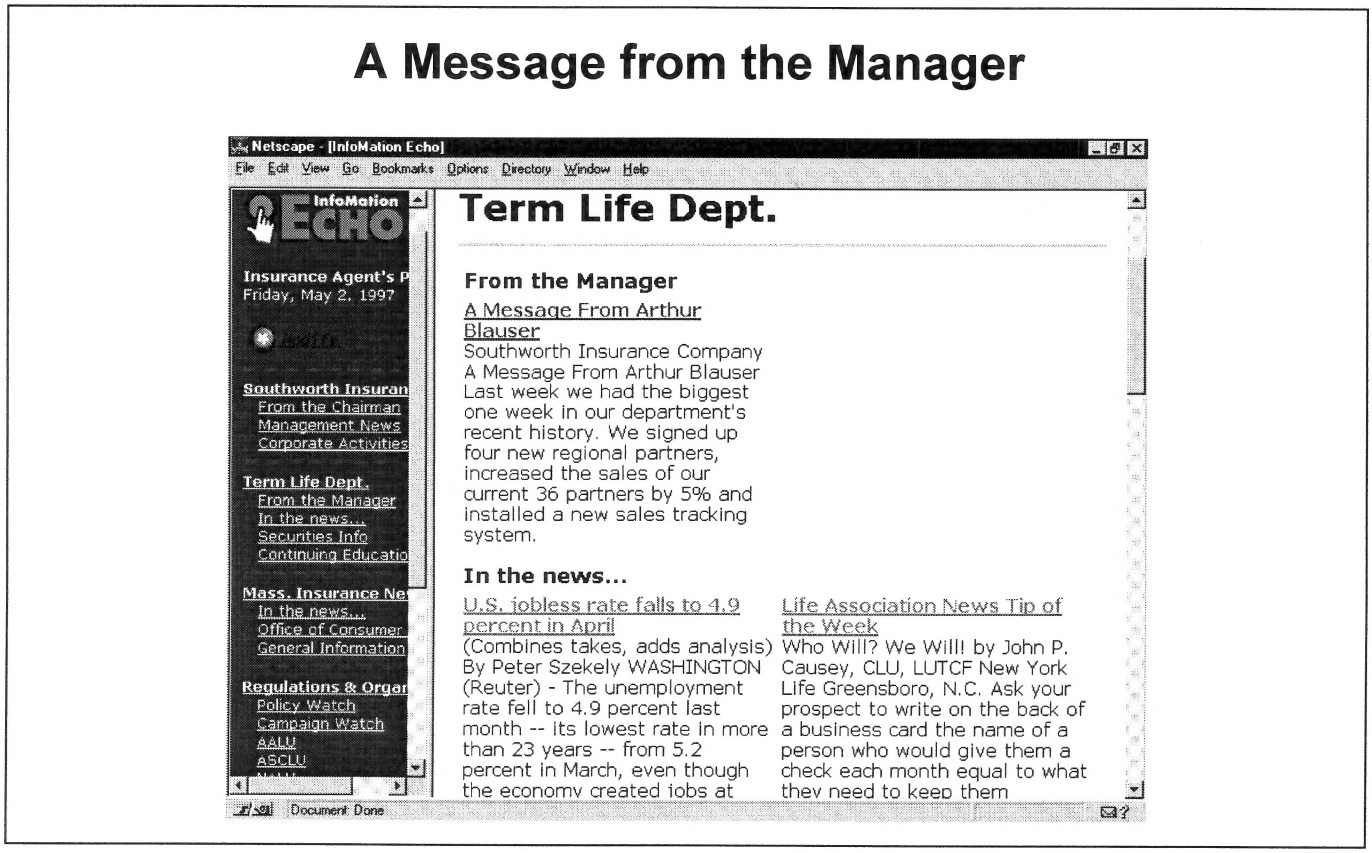
A Message from the Manager
Netscape - [InfoMation Echo]
File Edit View Go Bookmarks Options Directory Window Help
InfoMation ECHO
Insurance Agent's P
Friday, May 2, 1997
Southworth Insuran
From the Chairman
Management News
Corporate Activities
Term Life Dept.
From the Manager
In the news...
Securities Info
Continuing Educatio
Mass. Insurance Ne
In the news...
Office of Consumer
General Information
Regulations & Orgar
Policy Watch
Campaign Watch
AALU
ASCLU
Term Life Dept.
From the Manager
A Message From Arthur Blauser
Southworth Insurance Company
A Message From Arthur Blauser
Last week we had the biggest one week in our department's recent history. We signed up four new regional partners, increased the sales of our current 36 partners by 5% and installed a new sales tracking system.
In the news...
U.S. jobless rate falls to 4.9 percent in April
(Combines takes, adds analysis)
By Peter Szekely WASHINGTON (Reuter) - The unemployment rate fell to 4.9 percent last month -- its lowest rate in more than 23 years -- from 5.2 percent in March, even though the economy created jobs at
Life Association News Tip of the Week
Who Will? We Will! by John P. Causey, CLU, LUTCF New York Life Greensboro, N.C. Ask your prospect to write on the back of a business card the name of a person who would give them a check each month equal to what they need to keep them
Document Done

Illustration 3. The Echo personal information center can assure the delivery of key information to all users or to specific users.

As we can see in Illustration 4, a company can make sure that all users see a set of information (defined in the Corporate Template), while users in each Industry Sector or Division see additional information specific to their job requirements.

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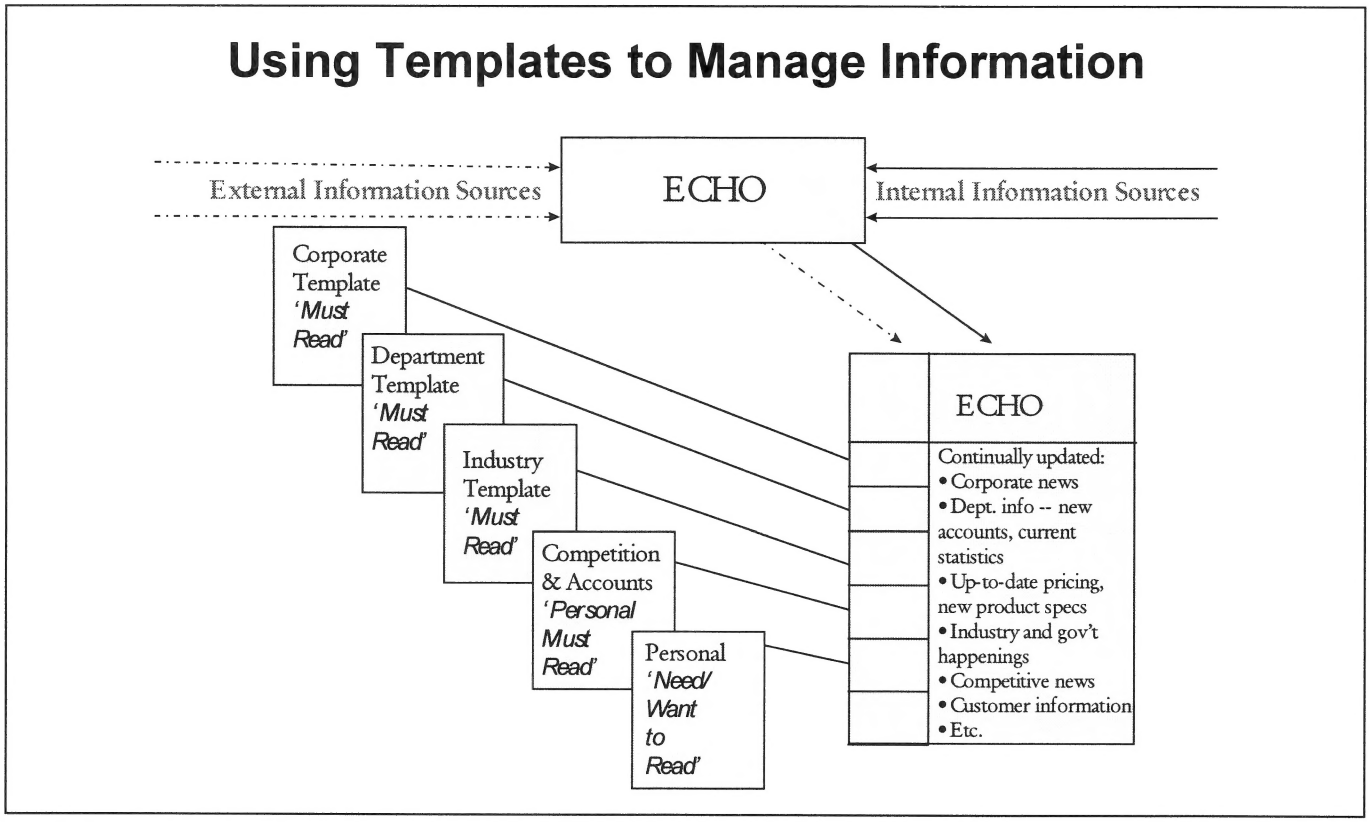

Illustration 4. Who sees which information can be managed by a set of templates.

An Example

Let's look at the example of a large U.S. company. This company engages in insurance activities, and it has thousands of agents throughout its departments and subsidiaries across the country. The company is implementing an Echo solution that manages information at three levels: corporate, departmental, and personal.

The corporate level assures that all agents receive such information as the following:

- Communications from executive management
- Management changes
- Corporate action

At the departmental level (either a specific department or subsidiary), each agent receives (in addition to the corporate information) the following:

- Communications from departmental management
- Operational instructions
- Training information
- Industry news and information
- Governmental rules and regulations
- Competitive information

At the personal level, each individual additionally receives the following:

- Customer news
- Customers sales activities
- Personal interests

InfoMation Provides Starter Templates

Echo templates can be configured internally by the organization or can be delivered as Echo applications by third-party experts in horizontal or vertical information spaces. To provide a jump-start on the process, InfoMation is developing a set of commonly-used applications and templates that emphasize multiple sources of important content, personal and deep understanding and a need to know, and timely regular delivery that solves specific business problems or creates opportunities. These include agent communications, customer support, customer communications, newsletter publishing, business partner communications, and other similar areas.

Conclusion: Turning Information Management into Knowledge Management

Managing Information as a Resource

InfoMation's Echo provides us with a glimpse into the future, where information will be managed more as an organizational resource than by personal whim. We are likely to see new terms, such as Return on Information (ROI), which will emphasize the strategic nature of information use as well as the requirement for companies to get increasingly more value from the money spent on generating and purchasing information. This also provides significant value to information providers, who can then get the full value of their information and continually customize and increase that value.

Strategic Use of Information

More than just managing internal information, a system such as Echo can be used to provide timely, focused information throughout the supply chain. This enables establishing closer relationships with partners and customers and the building of virtual business communities.

From Information to Knowledge

InfoMation's Echo also shows us ways that companies can take the next step to "knowledge management." Echo not only enables the delivery of appropriate information, but it puts that information in context—a context that combines the organization's view of its business (as expressed in the required templates) and the users' personalized views of their roles within the business. And the Echo personal information center surfaces that context in order to make the significance of the information clear and to enable decisive action based on the information content, context, and importance.

InfoMation takes knowledge management even one step further by allowing (and encouraging) users to share their own Echo filters with each other. The value goes far beyond sharing the information itself. It is a way to share knowledge about how to look at subjects and how to receive key information. Taken to its logical conclusion, this aspect of Echo takes the best of individual understanding and puts it into the

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corporate domain—a perfect complement to Echo's role of taking corporate context and putting it around the individual's information environment.

InfoMation at Your Fingertips

InfoMation's Echo is a significant step in the evolution of our understanding of and ability to manage the overwhelming amount of information facing us daily. It is the first approach to serve the individual within the context of an organization's information and knowledge needs. It portends the day when the information we need and want is just there, when we need it and where we want it.

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